Remarks

This is in response to the final Office Action mailed November 26, 2004. Claims 29, 37, and 40 have been canceled without prejudice or disclaimer. Claims 25-27, 30-36, 38, 39, 41, 42, and 44 have been amended, and claim 45 has been added. Support for the amendments and new claim can be found, for example, at Figures 1-5 and 28-31 of the present application. No new matter has been added. Consideration and allowance of claims 25-28, 30-36, 38, 39, and 41-45 are respectfully requested for at least the following reasons.

In sections 4-25 of the Action, claims 25-44 were rejected under 35 U.S.C. § 102(b) as being anticipated by Cocke et al., U.S. Patent No. 3,577,189. This rejection is respectfully traversed, and the correctness of the rejection is not conceded.

Claim 25 is directed to a device including a sequencer programmed for updating an output to one of at least three different states as a conditional execution status in response to an instruction decoding operation among a computational instruction and subsequent instructions including a plurality of instructions that are sequentially arranged as an instruction sequence after a computational instruction.

For example and without limitation, Figures 3, 3A, and 3B of the present application illustrate a conditional execution status 709 that is set to one of four different states (x'00 to x'11). Application, p. 14, l. 13 - p. 15, l. 12.

Cocke fails to disclose or suggest a device including a sequencer programmed for updating an output to one of at least three different states, as recited in claim 25. Cocke discloses use of a branch state flip-flop 64 including only two states (0 and 1). Cocke, col. 8, l. 73 - col. 9, l. 3. If a first branch condition is successful in a BRANCH 1 instruction, the branch state flip-flop 64 is updated (i.e., the state is changed from 0 to 1), and subsequent BRANCH instructions (e.g., BRANCH 2 in Figure 7) are overridden in accordance with the updated value of the branch state flip-flop 64. Cocke, col. 12, ll. 26-34; col. 17, l. 5 - col. 18, L 11; and Table V.

However, if the branch state flip-flop 64 is updated (from 0 to 1 or 1 to 0) in response to the decoding operation of subsequent instructions as disclosed by Cocke, branch instructions that should normally be overridden are not overridden because, even if the branch state flip-flop 64 is set to override BRANCH instructions, when the branch state flip-flop 64 is updated (from 0 to 1 or 1 to 0) every time subsequent instructions are decoded, the branch state flip-flop 64 may be reset since it can take only two states (0 and 1). In other words, since the branch state flip-flop

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64 can take only two states, once the branch state flip-flop 64 is set to override BRANCH instructions, the branch state flip-flop 64 cannot be reset until an exit instruction. The branch state flip-flop 64 therefore cannot be updated (from 0 to 1 or 1 to 0) every time subsequent instructions (instructions from a BRANCH instruction with which the branch state flip-flop 64 is set to an exit instruction) are decoded. Consequently, BRANCH instructions in Cocke that are to be overridden are not overridden.

Claim 25 also recites an instruction overriding control circuit programmed for controlling an overriding of any instruction of the subsequent instructions in response to the conditional execution status updated by the sequencer.

Cocke fails to disclose or suggest an instruction overriding control circuit programmed for controlling an overriding of any instruction of the subsequent instructions in response to the conditional execution status updated by the sequencer, as recited by claim 25.

Reconsideration and allowance of claim 25, as well as claim 26 that depends therefrom, are therefore respectfully requested.
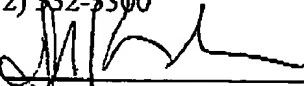
Claims 27 and 42, although not identical in scope, include limitations similar to those noted above with respect to claim 25. For at least this reason, claims 27 and 42, as well as claims 28, 30-36, 38, 39, 41, 43, and 44 that depend respectively therefrom, should be allowable. Further, claim 45 depends indirectly from claim 42 and should be allowable for at least the same reasons as claim 44. Consideration and allowance are respectfully requested.

In view of the above amendments and remarks, Applicant respectfully requests a Notice of Allowance. If the Examiner believes a telephone conference would advance the prosecution of this application, the Examiner is invited to telephone the undersigned at the below-listed telephone number.

Respectfully submitted,

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